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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,393	10/23/2003	Daniel J. Calanni	200-65900 (2003-00762)	8468

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EXAMINER	
FLANIGAN, ALLEN J	
ART UNIT	**PAPER NUMBER**
3753	

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

58

Office Action Summary	Application No.	Applicant(s)	
	10/692,393	CALANNI ET AL.	
	Examiner	Art Unit	
	Allen J. Flanigan	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-19 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of copending Application No. 10/606452 in view of Onuki. The claims of the instant application differ from those in only in that they recite a single first wall and a single second wall for blocking off selective claimed grooves, rather than a plurality of first and second walls. Onuki shows that it is known in the art to provide unitary end walls with openings formed therein to selectively permit flow to alternate passages formed in a corrugated sheet forming a heat exchanger. Thus, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to replace the claimed "plurality of first walls" and "plurality of second walls" with the unitary end walls 2, 3 taught in Onuki.

This is a provisional obviousness-type double patenting rejection.

The drawings are objected to under 37 CFR 1.83(a) because they fail to show an "air flow generator 240, such as a radial fan . . . adjacent openings 226", and an "air flow generator 244, such as a radial fan . . . adjacent openings 232" as described in the specification. The drawings (Fig. 2D) show fans 240, 244 well spaced from their respective openings 226, 232. In such a position, the fans will be incapable of causing the flow described in the specification. Radial fans in particular require close proximity to a suction opening in a housing to generate flow. The alternate locations shown in dotted lines 240A, 244A correctly show where such blower wheels would have to be located to cause the flow described. Of course, such blowers could still be mounted on the opposite wall, as long as the blower wheel was close to the openings on the wall. Applicant is required to correct the drawings to clearly show the structure that is actually described in the specification. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional

replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Fries et al.

Fries et al. appears to show a design virtually identical to the applicants' disclosed embodiment; compare Fig. 2D, 2E, and 4A of the instant application with Figs. 1, 2, and 3 of Fries et al. Note that the air flow enters an opening formed in the side wall via a fan located in a plenum region, and by virtue of

end plates selectively blocking alternate passages of the exchanger 8, flows through selected passages and then out through an opening in the side plate that exposes portions of the passages or "grooves" as the claims refer to them. Regarding claim 8, note the upper and lower end walls that extend from the side panel 18 to cap off the top and bottom plenum regions as seen in Fig. 1 of Fries et al.

As noted above, this application is drawn to an embodiment in which the ends of alternate grooves G1, G2 are blocked by unitary plates 220, 222 with retangular passages 220A, 222A formed therein to permit communication with the grooves from the manifold spaces. The scope of the claims as drafted, however, is broad enough to encompass the plural end covers 11 of Fries et al. Claim 1, for example, merely recites that the "first wall" and "second wall" are "connected to the air flow structure". The use of the term "comprising" in line 1 of claim 1 fails to preclude the presence of additional elements, such as the additional members 11 of Fries et al., and the claim language does not positively recite that the recited single walls block off flow in plural grooves, or that it has formed therein plural openings, etc. (*cf* claim 16).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Fries et al.

Claims 9-12 recite airflow generators "connected" to the claimed first or second plates. The scope of this term would appear to not be limited to fan means directly attached to the recited plates; Fries et al. does not appear to specifically indicate how fans 20, 29 are mounted or attached in the plenum spaces, but by virtue of the fact that all the parts are assembled to each other, they can fairly be said to be "connected", directly or indirectly, to both side plates 18 and 26. Even assuming "connected" was narrowly construed to mean "directly attached to", it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to attach fans to either of these side plates as a matter of mounting convenience. There does not appear to be anything critical about which wall these fans are attached to in terms of the operation of the claimed device, and it would be an obvious matter of design choice to attach the fans to any convenient component of the exchanger.

Claims 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Onuki.

Onuki teaches unitary end sealing members 2, 3 of plastic or the like (Fig. 4, Fig. 8) that are joined to a corrugated member 1 to selectively block passages at one end as is well known in this type of heat exchanger. Note holes 23, 33 that permit selective communication with the openings 11, 12 formed in corrugated strip 1.

Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onuki.

As noted above, Onuki teaches end sealing members of plastic or the like (Fig. 4, Fig. 8) that are joined to a corrugated member 1 to selectively block passages at one end as is well known in this type of heat exchanger. Onuki does not explicitly mention the use of adhesive in joining the plastic end members to the corrugated metal sheet 1, although the discussion of the prior art notes the use of adhesive to join sealing members of rubber or the like to the wave-shaped plate 6 (last full paragraphs of column 2). The Examiner hereby takes Official Notice that use of adhesives to join nonmetallic materials to metal is ubiquitous and notoriously well known in the art; adhesives used to join heat exchanger components not only maintain components in assembled relation but ensure a proper seal between parts isolating fluids from each other. Thus, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to use an adhesive to join the plastic end walls of Onuki to the heat exchanger strip 1. ***In re Malcolm, supra.***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The remaining references cited show various air-to-air heat exchangers of the type claimed. Note Foley et al.'s use of unitary plastic strips to seal off heat exchanger ends in this type of exchanger.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen J. Flanigan whose telephone number is (571) 272-4910. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (571) 272-4930. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Allen J. Flanigan
Primary Examiner
Art Unit 3753

AJF